



Marine and Coastal CAPABILITY STATEMENT

UWA's Centre for Environmental Economics and Policy addresses complex, multi-faceted environmental problems through quality multidisciplinary research, engagement and training.

Our Centre specialises in providing socio-economic ocean research and policy analysis, including for: marine protection, coastal health, coastal recreation, plastic pollution, habitat enhancement, contested coastal space, and social licence for marine and coastal industries. Measuring community values within an economic framework is a key component of our work supporting better management of our marine and coastal environment (see [CEEP video](#)).



Photo credit: Marit Kragt

WHY CHOOSE US?

1. We have established collaborations with researchers from leading universities and partnerships with research institutes.
2. We have more than 20 years' experience working on nationally funded research programs, industry projects and providing consulting services.
3. Our internationally recognised experts can support your organisation by:
 - a. Conducting quality research, policy analysis and state-of-the-art bio-economic modelling
 - b. Developing and applying economic tools and frameworks to improve decision-making processes
 - c. Delivering customised training and activities to build capacity among your staff and key stakeholders.

SKILLS AND SERVICES

- Interdisciplinary research
- Bio-economic modelling of environmental issues
- Economic evaluation, investment choice and prioritisation frameworks
- Design and evaluation of environmental policies
- Valuation of non-market benefits, and conducting benefit transfer
- Informing adoption of environmental practices
- Environmental decision support tools
- Business case development
- Questionnaire/survey design and analysis
- Focus group facilitation & semi-structured interview techniques
- Multi-stakeholder project management
- Tailored training packages, including workshops and knowledge-sharing activities



Photo credit: Marit Kragt

OUR PARTNERSHIPS

- UWA Oceans Institute
- NESP Marine and Coastal Hub
- WA Marine Science Institution
- WA Department of Transport
- WA Department of Planning, Lands & Heritage
- Fisheries Research & Development Corporation
- Minderoo Foundation
- Australian Marine Conservation Society

OUR PEOPLE

Our centre consists of highly qualified academic staff, senior research fellows and postgraduate research students. Our **Marine and Coastal team** is led by:

DR ABBIE ROGERS

Dr Rogers' specialisation is in promoting systematic integration of social and environmental values in evidence-based decision making for coastal and marine managers. Her research work is highly applied with significant experience in delivering stakeholder activities.

ASSOCIATE PROFESSOR MICHAEL BURTON

A/Prof Burton's key area of research is on understanding people's behaviour, and the values that underpin those behaviours. His specialisation is in quantitative approaches to valuing environmental resources in marine and coastal areas. He has published over 100 peer-reviewed papers and supervised over 20 PhD students to completion.

RECENT OUTPUTS

- A White Paper on the priorities for coastal research in Western Australia. [Available Here](#)
- Non-market valuation instruments for measuring community values affected by coastal hazards and their management designed for WA Government. [Available Here](#)
- Benefit-cost framework for evaluation of marine habitat restoration.
- Analyses of marine eco-tourism benefits, including evaluation of shark-diving tourism in Palau, the Maldives and Semporna.
- Optimal management and resource allocation models for recreational fishing at Ningaloo.
- Measurement of social licence to operate for marine industries, including oil & gas, and tourism.
- Assessment of community preferences for harbour expansion options to service the Greater Perth Region.
- Review of the current knowledge and key information gaps relevant to estimating the external costs of ocean plastics.
- Understanding the value provided by man-made aquatic structures, including oil & gas decommissioning.
- Evaluation of community preferences for marine conservation and management.
- 'INFFEWS' investment framework benefit-cost and non-market valuation tools for water-sensitive design of urban coastal environments, designed for Water Sensitive Cities CRC partners. Available at: <https://watersensitivecities.org.au/content/project-irp2/>
- 'EAST' benefit-cost analysis screening tool and the 'Value Tool for Natural Hazards' for prioritising investment in mitigation of coastal hazards, designed for Bushfire and Natural Hazards CRC partners. Available at: <https://www.bnhcrc.com.au/research/policy-economics-hazards/229>
- [Intro Course on Economics of Natural Hazards and INFFEWS training videos.](#)
- UWA Oceans Institute Expert Series: [Key economic concepts marine scientists should know](#)

CONTACT US

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Marine and Coastal

RELEVANT PUBLICATIONS - JOURNAL ARTICLES

- Bach, L. & Burton, M. (2017). [Proximity and animal welfare in the context of tourist interactions with habituated dolphins](#). *Journal of Sustainable Tourism*, 25(2): 181-197.
- Burton, M., Jennings, S., Fragnol, L., Marre, J.B., Parades, S., Pascoe, S., Rogers, A. & Yamazaki, S. (2015). '[The South-east Commonwealth Marine Reserves Network – Public Knowledge, Perceptions and Values Survey](#)'. Report prepared for the NERP Marine Biodiversity Hub, The University of Western Australia, Crawley.
- Davis, K.J., Vianna, G.M.S., Meeuwig, J.J., Meekan, M.G. & Pannell, D.J. (2019). [Estimating the economic benefits and costs of marine protected areas](#). *Ecosphere*, Volume10, Issue10 e02879 .
- Davis, K., Burton, M. & Kragt, M.E. (2019). [Scale heterogeneity and its implications for discrete choice analysis](#). *Land Economics*, 95(3):353–368.
- Davis, K.J., Burton, M., Rogers, A., Spencer-Cotton, A., & Pandit, R. (2019). [Eliciting Public Values for Management of Complex Marine Systems: An Integrated Choice Experiment](#). *Marine Resource Economics*, 34(1).
- Davis, K., Kragt, M., Burton, M., Schilizzi, S., Gelcich, S. & Pannell, D.J. (2017). [Why are fishers not enforcing their marine user rights?](#) *Environmental and Resource Economics* 67(4), 661-681.
- Davis, K., Kragt, M., Gelcich, S., Schilizzi, S. & Pannell, D.J. (2015). [Accounting for enforcement costs in the spatial allocation of marine zones](#). *Conservation Biology* 29(1), 226-237.
- Davis, K., Kragt, M., Gelcich, S., Schilizzi, S. & Pannell, D. (2015). [Of nets, fisher rights and net benefits: Enforcement and marine management: maximizing conservation & economic value](#). *Decision Point* 85, 10-11.
- De Brauwer, M. & Burton, M. (2018). [Known unknowns: Conservation and research priorities for soft sediment fauna that supports a valuable SCUBA diving industry](#). *Ocean and Coastal Management*, 160, pp. 30-37.
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- Fuentes, M.M.P.B., Blackwood, J., Jones, B., Kim, M., Leis, B., Limpus, C.J., Marsh, H., Mitchell, J., Pouzols, F.M., Pressey, R.L. & Visconti, P. (2015). [A decision framework for prioritizing multiple management actions for threatened marine megafauna](#). *Ecological Applications*, 25: 200-214.
- Gunawardena, A. & Baland, J.M. (2016). [Targeting Disaster Aid in Post-Tsunami Sri Lanka](#). *Journal of Development Policy Review*, vol. 34, issue.2, pp 179-195.
- Huveneers, C., Meekan, M.G., Apps, K., Ferreira, L.C., Pannell, D. & Vianna, G.M.S. (2017). [The economic value of shark-diving tourism in Australia](#). *Reviews in Fish Biology and Fisheries* 27, 665-680.
- Iftekhar, S. & Tisdell, J.G. (2015). [Bidding and performance in multiple unit combinatorial fishery quota auctions: Role of information feedbacks](#). *Marine Policy*, 62, 233-243
- Iftekhar, M.S. & Tisdell, J.G. (2013). [Comparison of simultaneous and combinatorial auction designs in fisheries quota market](#). *Marine Policy*, 36, 446-453
- Kamil, K.A., Hailu, A., Rogers, A. & Pandit, R. (2017). [An Assessment of marine protected areas as a marine management strategy in Southeast Asia: A literature review](#). *Ocean & Coastal Management*, 145: 72-81.

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- McLeod, I.M., Boström-Einarsson, L., Johnson, C.R., Kendrick, G., Layton, C., Rogers, A.A. & Statton, J. (2018). [The role of restoration in conserving matters of national environmental significance](#). Report to the National Environmental Science Programme, Marine Biodiversity Hub.
- Navarro, M., Hailu, A., Langlois, T.J., Ryan, K. & Kragt, M.E. (2019). [Determining spatial patterns in recreational catch data: a comparison of generalized additive mixed models and boosted regression trees](#). ICES Journal of Marine Science.
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- Richert, C., Rogers, A. & Burton, M. (2015). [Measuring the extent of a Social License to Operate: The influence of marine biodiversity offsets in the oil and gas sector in Western Australia](#). Resources Policy, 43, 121-129.
- Rogers, A & Burton, M. (2018). '[Non-market valuation instruments for measuring community values affected by coastal hazards and their management](#)', Report prepared for the Western Australian Department of Planning, Lands & Heritage. The University of Western Australia.
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- Spencer-Cotton, A., Kragt, M.E. & Burton, M. (2018). [Spatial and Scope Effects: Valuations of Coastal Management Practices](#), Journal of Agricultural Economics, 69(3): 833–851.
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- Thamo, T., Pannell, D., Kragt, M., Robertson, M. & Polyakov, M. (2017). [Dynamics and the Economics of Carbon Sequestration: Common Oversights and their Implications, Mitigation and Adaptation Strategies for Global Change](#) 22(7): 1095-1111.



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BOOKS & BOOK CHAPTERS

Rogers, A.A. & Burton, M.P. (2019). 'Community values and preferences for coastal hazard interventions', in Techera, E., Winter, G. (Eds.) [Marine Extremes: Ocean Safety, Marine Health and the Blue Economy](#), pp. 48-64, Routledge, Melbourne, Australia.

CONFERENCE PAPERS

Kragt, M.E., Spencer-Cotton, A. & Burton, M. (2016). Spatial choice experiments to support environmental management of the Kimberley coast. In: Sauvage, S., Sánchez-Pérez, J.M. & Rizzoli, A.E. (eds.) *Proceedings of the 8th International Congress on Environmental Modelling and Software (iEMSs)*, 10-14 Jul 2016, Toulouse, France. pp. 305-312. ISBN: 978-88-9035-745-9.

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